ALBEMARLE® CORPORATION

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October 12, 1998

Express Mail - Return Receipt Requested

Document Control Officer
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
401 M Street, S.W.
Washington, DC 20460

Attention: 8(e) Coordinator

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Dear Sir/Madam:

Re: Mixture of :
1,3-benzenediamine, 2-methyl-4,6-bis(methylthio)-[CAS # 104983-85-9] and
1,3-benzenediamine, 4-methyl-2,6-bis (methylthio)-[CAS # 102093-68-5]

This letter is submitted in accordance with Section 8(e) of the Toxic Substances Control Act, 15 USC 2607(e) and the Environmental Protection Agency's "Statement of Interpretation and Enforcement Policy", 43 FR 1110, 35 seq., March 1978. This notice pertains to an alleged oral exposure of the subject chemical to an employee of a customer using the material at work. Although we have no substantiation the exposure did occur, we are submitting this notice in an abundance of caution under TSCA 8(e).

On September 21, 1998, Albemarle received a telephone call from a hospital pharmacy intern who said a patient was being treated for renal failure after an alleged oral exposure to the subject chemical. The intern requested information regarding the subject chemical's toxicity. We manufacture the subject chemical and gave the toxicity information. The patient was the employee of a distributor's customer. We called the employer of the patient to obtain information on the incident. He gave us the following:

> On the morning of September 15, the employee had three separate plastic cups on her workbench. These cups contained - 1) a mixture of toluene diisocyanate [CAS 26471-62-5] and polyol, 2) the subject chemical, and 3) a mixture of the subject chemical, toluene disocyanate and polyol. A soft drink can was also on her workbench. The employee reported inadvertently picking up and taking a sip from one of the plastic cups instead of from the soft drink can. The employee reported to her employer she did not swallow the material and immediately spit it out. The employer told her to rinse her mouth with water which she did. We do not know specifically which of the materials in plastic cups she sipped. The employee alleges she sipped the subject chemical. About an hour later, she started vomiting and was sent home.

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Later the night of September 15, she went to a hospital emergency room due to intermittent nausea and vomiting and abdominal pain. Medical records indicate physical examination was essentially normal with some tenderness in the lower abdominal area but without mass, rebound or rigidity. Her pharynx was clear and there was no evidence of erythema or burn. All renal and liver blood tests and urinalysis were normal. She was given saline and Compazine intravenously and discharged with instructions to take Tylenol and return in the event of increased pain or vomiting.

On September 18, she returned to the hospital with similar complaints. Blood tests showed elevated creatinine and BUN. Total protein and WBC were also elevated. She was admitted overnight and transferred to the St. Luke Hospital Dialysis unit in Milwaukee, WI the next day. The nephrologist at St. Luke diagnosed her as being in renal failure resembling cases he had seen with toluene exposures. The patient was discharged sometime the following week.

The subject chemical was under a TSCA 5(e) Consent Order until May, 1998. EPA revoked the Consent Order after reviewing the results of a two year feeding study we sponsored on this chemical. A SNUR revocation notice is in the comment period. The two year feeding study gave no indication of any renal effect. Hydrocarbon nephropathy lesions were observed in a 90-day feeding study on this material, but only in male rats. Hydrocarbon nephropathy is well known to be associated with a specific protein, alpha-2U-globulin, present only in male rats. To our knowledge, this protein has not been reported in humans and no other species has exhibited a syndrome similar to the alpha-2U-globulin nephropathy observed in male rats.

Based on the known toxicity of this compound, it is difficult to correlate renal failure to this alleged oral exposure to the subject chemical. Toluene diisocyanate exposure would give similar symptoms of vomiting and nausea. We are unsure of the role of concomitant dehydration and Tylenol ingestion in the development of renal failure. We will forward additional information to the Agency when available.

If you have any questions, please contact me at 225-388-7608.

Sincerely,

Robert L. Smith

Robert L. Smith, Ph.D.
Director
Toxicology, Regulatory and Environmental Affairs

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